

**Duke Power**  
***Annual Review of Base Rates***  
***for Fuel Costs***

***Docket No. 2003-3-E***

***Direct Testimony***  
***A. R. Watts***  
***Utilities Department***

***Public Service Commission of South Carolina***

**TESTIMONY OF A. R. WATTS****FOR****THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA****DOCKET NO. 2003-3-E****IN RE: DUKE POWER****Annual Review of Base Rates for Fuel Costs**

**Q. WOULD YOU PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION?**

**A.** A. R. Watts, 101 Executive Center Drive, Columbia, South Carolina. I am employed by The Public Service Commission of South Carolina, Utilities Department, as Chief of Electric.

**Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

**A.** I received a Bachelor of Science Degree in Electrical Engineering from the University of South Carolina in Columbia in 1976. I was employed at that time by this Commission as a Utilities Engineer in the Electric Department and was promoted to Chief of the Electric Department in August 1981. I have been in my current position since October 1999. I have testified before this Commission in conjunction with fuel clause, complaint, territorial assignment, siting, and general rate proceedings.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

**A.** The purpose of my testimony is to summarize Staff's findings as set forth in the Utilities Department's portion of the Staff Report and provide a review of the methodology used in determining the Company's avoided fuel costs exclusive of the variable O&M component.

1 **Q. WHAT SPECIFIC AREAS WERE ENCOMPASSED BY**  
2 **STAFF'S EXAMINATION?**

3 **A.** The Utilities Department's examination of the Company's fuel operations consisted,  
4 in part, of a review of the Company's monthly operating reports, review of the  
5 currently approved Adjustment For Fuel Costs tariff, and review of the Company's  
6 short-term projections of kilowatt-hour sales and fuel costs.

7 **Q. DID STAFF EXAMINE THE COMPANY'S PLANT OPERATIONS FOR**  
8 **THE PERIOD?**

9 **A.** Yes, we reviewed the Company's operation of its generating facilities, including  
10 special attention to the nuclear plant operations, to determine if the Company made  
11 every reasonable effort to minimize fuel costs.

12 **Q. HAVE YOU DETERMINED THAT ANY SITUATIONS WARRANT**  
13 **DETERMINATION THAT THE COMPANY HAS ACTED**  
14 **UNREASONABLY IN OPERATING ITS FACILITIES AND THEREBY**  
15 **CAUSING ITS CUSTOMERS TO BE SUBJECT TO PAYING HIGHER**  
16 **FUEL COSTS?**

17 **A.** No, the Company's generating facilities operated very well during the period under  
18 review. The actual average nuclear system capacity factor was 95.73%, which  
19 included five refueling outages during the review period. Four of these refueling  
20 outages set records for shortest outage times ever at the respective units. The major  
21 fossil units averaged over 95% availability for the majority of the period under  
22 review as indicated on Utilities Department Exhibit No. 1.

23 **Q. WOULD YOU BRIEFLY EXPLAIN THE REMAINING UTILITIES**  
24 **DEPARTMENT'S EXHIBITS?**

25 **A.** Yes. Exhibit No. 2 shows the Company's Major Plant Outages for the months of  
26 April 2002 through March 2003, listing the plants by unit, duration of the outage,  
27 reason for the outage, and corrective action taken. Exhibit No. 3 lists the Company's  
28 percentage Generation Mix by fossil, nuclear, and hydro for the period April 2002  
29 through March 2003. Exhibit No. 4 reflects the Company's major plants by  
30 name, type of fuel used, average fuel cost in cents per KWH to operate, and total

1 megawatt-hours generated for the twelve months ending March 2003. Exhibit  
2 No. 5 shows a comparison of the Company's original retail megawatt-hour estimated  
3 sales to the actual sales for the period under review. Exhibit No. 6 is a comparison of  
4 the original fuel factor projections to the factors actually experienced for the twelve  
5 months ending March 2003. Exhibit No. 7 is a graphical representation of the  
6 data in Exhibit No. 6. Exhibit No. 8 is the Company's currently approved retail  
7 Adjustment For Fuel Costs tariff. Exhibit No. 9 is a history of the cumulative  
8 recovery account. Exhibit No. 10 is a table of estimates for the cumulative recovery  
9 account balance for various base level fuel factors for the period ending May  
10 2004.

11 **Q. WOULD YOU PLEASE PROVIDE YOUR REVIEW OF THE**  
12 **METHODOLOGY USED IN DETERMINING THE COMPANY'S AVOIDED**  
13 **FUEL COSTS?**

14 **A.** The Company's generation is categorized by four major groups including 1) base  
15 load, 2) other fossil, 3) combustion turbines and 4) pumped storage. The data for  
16 each generating facility includes megawatt-hours, production costs, and fuel and  
17 emissions costs. A monthly percentage of the fuel and emission costs divided by  
18 production plus emission costs was calculated using all the plant data from the non-  
19 base load units. Emission costs are recorded separately from production costs and  
20 the base load generation was excluded due to the remote possibility of these units  
21 being displaced. This is an effective method for removing the non-fuel portion of  
22 the Company's avoided production costs. The Audit Staff used the resulting monthly  
23 percentages in determining allowable fuel costs for power purchases where no fuel  
24 component was identified.

25 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

26 **A.** Yes, it does.